

## *General Information*



The DOE Advanced Computational Software Collection (ACTS)

Twelfth DOE  
ACTS Collection Workshop  
Berkeley, California, August 16-19, 2011

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# NERSC SYSTEMS

## SYSTEMS



### Hopper Cray XE6 »

Hopper is NERSC's first peta-flop system, a Cray XE6, with 153,216 compute cores, 217 TB of memory and 2PB of disk. Hopper placed number 5 on the November 2010 Top500 Supercomputer list.

[Read More »](#)



### Franklin Cray XT4 »

Franklin, named in honor of Benjamin Franklin, is a Cray XT4 massively parallel processing system with 38,128 Opteron compute cores and a peak performance of 352 TFlops/sec. [Read More »](#)



### Carver IBM iDataPlex »

Carver, named in honor of American scientist George Washington Carver, is an IBM iDataPlex system with 400 compute nodes. Each node contains two Intel Nehalem quad-core processors (3,200 cores total). The system's theoretical peak performance is 34 Tflop/s.

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# ACTS INFORMATION

- ACTS website:  
[acts.nersc.gov/](http://acts.nersc.gov/)
- 12th DOE ACTS Workshop:  
[acts.nersc.gov/events/Workshop2011](http://acts.nersc.gov/events/Workshop2011)
- Agenda, tutorials and hands-on:  
[acts.nersc.gov/events/Workshop2011/Agenda.htm](http://acts.nersc.gov/events/Workshop2011/Agenda.htm)

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# Instructions

## Logging to carver:

```
term> ssh -Y train#@carver.nersc.gov  
once on carver (once per shell you open)  
carver> source /usr/common/acts/acts-tuts
```

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# Before you start today's (Wednesday) tutorials:

on carver, type:

```
carver> module load petsc/3.1_g or petsc/3.1_0
```

```
carver> module load slepc/3.1_g or slepc/3.1_0
```

```
carver> module load tao/1.10_g or tao/1.10_0
```

\_g : are versions compiled with the -g flag

\_O: are versions compiled with optimization on and uses other optimizations.

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# Instructions

Before you start today's (Thursday) tutorials:

```
carver> source /usr/common/acts/acts-tuts
```

For Overture

```
carver> module load overture/24a.d
```

```
carver> source /usr/common/acts/acts-overture
```

For Trilinos (on carver, Mark will be using a Web/Java interface):

```
carver> module load trilinos/10.6.4_g or trilinos/10.6.4_o
```

For SuperLU

```
carver> module load superlu_dist/2.5_g or superlu_dist/2.5_o
```

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## Other module examples:

to check what is available in on carver:

```
carver> module avail library-name
```

to check what libraries/modules you have already loaded

```
carver> module list
```

to obtain help on a module

```
carver> module help <library-name>
```

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